SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGES	PAGE
	4	1
ENGINEERING AND COMPLIANCE DIVISION	APPLICATION NO.	DATE
	511603	6/29/10
APPLICATION PROCESSING AND CALCULATIONS	ENGINEER	CHECK BY
	DJG	

TITLE V PERMIT RENEWAL

OWNER/OPERATOR:

NP COGEN, INC.
6001 SOUTH EASTERN AVENUE
LOS ANGELES, CA 90040

EQUIPMENT LOCATION:

5605 EAST 61ST STREET
LOS ANGELES, CA 90040

TITLE V PERMIT RENEWAL APPLICATON (A/N 511603)

BACKGROUND/PROCESS DESCRIPTION:

NP Cogen Inc. submitted a Title V permit renewal application (No. 511603) on June 11, 2010. NP Cogen Inc. submitted their initial Title V application on July 25, 1997. A Title V renewal application was submitted on May 14, 2004 and the current Title V permit was issued on August 15, 2005.

NP Cogen Inc. has one Gas Turbine with an Electrical Generator (Device D1) at this location and an Internal Combustion Engine (ICE) with an Electrical Generator (Device D9 and D12).

At the present time the Gas Turbine system is in a non-operational state and is conditioned by condition No. E313.1. The company is required to notify the District when the company decides to begin operation of this equipment in the future. Consequentially, the facility is currently not reporting any emissions from this equipment. The ICE is currently in operation.

The ICE is rated at 1,468 HP and supplies power to operate a 998 kilowatt generator. The installation of the ICE and electrical generating system serves two purposes. One, the ICE powers an electrical generator that generates electricity that is sent back into the power grid. NP Cogen Inc. has a contract with Edison to sell electrical energy back to them when demand is high. NP Cogen also has the option to use the electrical energy they produce from their generator for use at the facility. Second, the waste heat in the exhaust stream generated from the operation of the ICE is sent through a heat exchanger. This high temperature air stream is then sent through a duct system to a neighboring facility (Newark Pacific Paperboard). This neighboring facility is in the business of manufacturing paper products and will use the heat in their manufacturing process.

NP Cogen Inc. has installed a selective catalytic reduction (SCR) emission control system to reduce NOx, CO, Non Methane Hydrocarbons and Ammonia (NH3) from the ICE and urea injection system to comply with District Rules and Regulations.

NP Cogen Inc. is subject to both RECLAIM and Title V programs.

TITLE V REVIEW:

Since the issuance of NP Cogen's Title V permit on August 15, 2005 the company has installed and is currently operating a natural gas fired internal combustion engine with a generator venting to a selective catalytic reduction control system. This equipment received approval for a permit to construct on December 22, 2005 and was approved for a permit to operate on September 21, 2006.

There are two rules that relate to emission limits for the ICE that need to be added to the "Emissions and Requirement" column. The first rule is 1110.2. Beginning on July 1, 2010, all ICE's with a horse power rating greater than 500 shall meet lower emission limits for NOx, VOC, and CO then was previously required. The new emission limits will be explained in the Rule section of this evaluation.

The other rule that applies to this ICE is Title 40 Part 63 of the Code of Federal Regulations (National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP)). The subpart of this title that applies to this engine is subpart ZZZZ. The date that an engine is required to comply with the emission limits is subject to whether the engine operates at major or area source of HAP emissions. This facility qualifies as an area source and not a major source. Therefore, the emission limits and date of compliance will be based on area source requirement. These emission limits and date of compliance will be discussed in the Rule section of this evaluation.

The non-operational natural gas turbine is also subject to a NESHAP requirement. This NESHAP is CFR40 Part60, Subpart GG, (Standards of Performance for Stationary Gas Turbines). The emission standard from this rule is currently on the Title V permit. There have been no changes to the emission limits of this rule since this requirement was imposed on the gas turbine.

RULE EVALUATION:

GAS TURBINE

Rule 407: Liquid and Gaseous Air Contaminants: CO requirement 2000 ppm – **In Compliance**

Rule 409: Combustion Contaminants: Combustion contaminates 0.1 grains/scf – **In Compliance**

Rule 475: Electric Power Generating Equipment: Air contaminates 0.1 grains/scf, and 11 lbs/hr **In Compliance**

40 CFR 60 Subpart GG: NOx requirement 116 ppm; **In Compliance**
SOx requirement 150 ppm: **In Compliance**

ICE

Rule 1110.2: **Emissions from Gaseous and Liquid-Fueled Engines;** CO requirement 250 ppm, and VOC requirement 30 ppm. The company performed a source test on the ICE on December 15, 2009. The results of the source test indicated the following emission levels for each pollutant:

NOx	6.5 ppm @15%
CO	21.2 ppm @15%
NH3	0.11 ppm @15%
VOC	7.9 ppm @15%

These values indicate that this equipment is "**In Compliance"** with the above rule emission requirements.

Rule 1303: **New Source Review**; The Best Available Control Technology (BACT) emission limits for this equipment is:

BACT limits 0.15 gr/bhp-hr VOC or 31 ppm
0.60 gr/bhp-hr CO or 71 ppm

The conversion from gr/bhp-hr to ppm was accomplished using conversion factors as shown in the appendix of this evaluation for natural gas.

As indicated by the emission levels from the source test, this equipment is emitting emission levels below these BACT emission limits. Therefore, this equipment is "**In Compliance**" with BACT requirements.

Rule 2005: **Regional Clean Air Incentives Market (RECLAIM**); **New Source Review;** The RECLAIM requirement for NOx emission is subject to BACT. The BACT emission limit for this equipment is:

BACT limit 0.15 gr/bhp-hr NOx or 11 ppm

As indicated by the emission levels from the source test, this equipment is emitting emission levels below these BACT emission limits. Therefore, this equipment is "**In Compliance**" with BACT requirements.

Regulation IX **NEW SOURCE PERFORMANCE STANDARDS (NSPS)**

No standards apply to IC Engines.

Regulation X **NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAPS)**

The standard that applies to this equipment is 40 CFR PART63 Subpart ZZZZ - "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines". This equipment, based on its HAP emission levels, qualifies as an area source. As an area source, this equipment is subject to the requirements of this rule no later than May 3, 2013. The emission limit requirement for this equipment is:

CO – 23 ppm @15%

The equipment, based on the source test results above, is currently demonstrating it is "**In Compliance**" with this limit.

CONCLUSIONS/RECOMMENDATIONS

The equipment located at 5605 East 61st Street in Los Angeles California has been reviewed for compliance with present and future District and Federal rules and regulations. The evaluation indicates that this equipment is in compliance. The Title V permit has been updated with the most current rule emission limits and citations. There was an additional condition added to the ICE to reflect the NESHAPS emission limit requirement.

It is recommended that this Title V permit renewal be approved.